Université Polytechnique
HAUTS-DE-FRANCE

MP. Statistics & Data mining (EUNICE shared course)

ECTS
4 crédits

Composante
INSA Hauts-de-France, UPHF

Présentation

Description

Goal : To understand and to be able to use basic ideas of statistical inference in a variety of settings.

List of subjects to be presented to the students :

• Descriptive statistics
• Foundations of Statistical Inference (univariate and multivariate analysis)
• Dimensionality reduction (PCA)
• Parametric and non-parametric tests
• Resampling techniques (bootstrap)
• Stated preference survey/reveal preference survey
• Introduction with summary of what has been seen in Module 2 where there is the content about data collect and analysis.
• Big principles of supervised / unsupervised methods (maybe also semi-supervised?)
• Main types of predictive techniques (regression and classification)
• Focus on the most used predictive techniques (SVM, neural networks, kNN, probabilistic graphical models, trees, ensemble models)